REMARKS

In paragraph 1 of the Action, claims 1-5 were rejected under 35 U.S.C. 102(b) as being anticipated by Ogura et al.

In view of the rejection, claims 2 and 3 have been canceled, and the subject matter of canceled claims 2 and 3 has been incorporated into claim 1. Claim 4 has been amended to depend from claim 1, and claim 5 has been editorially amended.

Ogura et al. cited in the Action is directed to a fluid pressure generator 1. In Fig. 1, when a brake pedal 80 is pressed down, a negative pressure type booster 2 is operated, and due to the output of the negative pressure type booster 2, a master cylinder 3 is operated. Then, brake liquid inside a first pressure chamber 44 of the master cylinder 3 rises. Due to the rise of the brake liquid inside the first pressure chamber 44, one part of the brake liquid inside the first pressure chamber 44 flows into a subsidiary pressure chamber 45 of the negative pressure type booster 2 through first and second communicating passages 43a, 40c shown in Fig. 2. Then, a pressure is generated inside the subsidiary pressure chamber 45. However, as long as the pressure inside the subsidiary pressure chamber 45 is smaller than an urging force of a spring 46, a slider valve 42 can not move relative to a power piston 22 by the pressure inside the subsidiary pressure chamber 45. Specifically, in Fig. 3, when a pedal input has a predetermined input Fi2 or below, the output of the fluid pressure generator 1 changes from Fo0 to Fo2 along an input-output straight line (a) with a small inclination.

When the pedal input exceeds the predetermined input Fi2, the pressure of the brake liquid inside the subsidiary pressure chamber 45 which is sent from the master cylinder 3 becomes larger than the urging force of the spring 46. Then, by a large pressure inside the subsidiary pressure chamber 45, the slider valve 42 moves backward relative to the power piston 22. Due to the backward movement of the slider valve 42 relative to the power piston 22, a subsidiary negative pressure valve seat 42a of the slider valve 42 abuts against a negative pressure seal part 32b of a control valve 32, and the communication between a vacuum passage 34 and an air passage 35 is interrupted. Accordingly, the communication between a first

front chamber 23 and a second rear chamber 26 is interrupted. Additionally, the slider valve 42 allows a movable portion 32c of the control valve 32 to move backward against an urging force of a valve spring 32e, and an atmospheric valve seat 28a to move further away from an atmosphere seal part 32a.

Therefore, a valve opening quantity of an atmospheric valve V1 is increased as compared to a valve opening quantity of the atmospheric valve V1 at the time when the slider valve 42 is not operated, so that the inflow volume of the atmosphere into both rear chambers 24, 26 is increased as compared to the inflow volume of the atmosphere into both rear chambers 24, 26 when the slider valve 42 is not operated. Also, pressures of both rear chambers 24, 26 go up further, and both movable walls 17, 20, the power piston 22 and a first piston 43 move forward further relative to a housing 14. Specifically, in Fig. 3, when the pedal input exceeds the predetermined input Fi2, the output of the fluid pressure generator 1 changes from the Fo2 to Fo4 along an input-output straight line (b) with a large inclination.

Ogura et al. does not directly disclose the stroke shortening mechanism of the present invention. However, in the fluid pressure generator 1 of Ogura et al., the slider valve 42 moves backward relative to the power piston 22, which may be deemed as the stroke shortening mechanism. However, the stroke shortening mechanism as suggested by Ogura et al. can be formed by the combination of the negative pressure type booster 2 and the master cylinder 3. Therefore, Ogura et al. does not disclose or suggest that the negative pressure type booster 2 includes the stroke shortening mechanism by itself.

In the fluid pressure generator 1 according to Ogura et al., the slider valve 42 is operated and controlled by the liquid pressure generated by the master cylinder 3. Specifically, in the fluid pressure generator 1 of Ogura et al., only by the combination of the negative pressure type booster 2 and the master cylinder 3, the output relative to the input of the fluid pressure generator 1 can be increased (the inclination of the input-output straight line (b) becomes larger).

Therefore, the negative pressure type booster 2 of Ogura et al. cannot increase the output relative to the input of the fluid pressure generator 1 by itself (in Fig. 3, the inclination of the input-output straight line cannot be changed from the straight line (a) to (b)). Also, in the case of the combination of the negative pressure type booster 2 and the master cylinder 3, it is necessary to provide the first and second communicating passages 43a, 40c, so that the structure of the fluid pressure generator 1 becomes complicated and the assembly of the fluid pressure generator 1 becomes troublesome. Specifically, the structure of the stroke shortening mechanism suggested in Ogura et al. is more complicated, and it is necessary to assemble the stroke shortening mechanism while the negative pressure type booster 2 and the master cylinder 3 are being fit together, so that the assembly of the stroke shortening mechanism becomes troublesome.

On the other hand, in the negative pressure booster of the present invention, the operation of the atmospheric valve opening quantity increasing means which is the stroke shortening mechanism is controlled by the pressure of a variable pressure chamber of the negative pressure booster. Specifically, in the negative pressure booster of the present invention, the output relative to the input can be increased only by the negative pressure booster itself (the inclination of the input-output straight line can be increased) without combining with the master cylinder. More specifically, the negative pressure booster of the present invention includes the stroke shortening mechanism by itself. Therefore, as described in the specification of the present invention, the structure of the atmospheric valve opening quantity increasing means, i.e. the stroke shortening mechanism, becomes simpler, so that the atmospheric valve opening quantity increasing means, i.e. the stroke shortening mechanism, can be easily assembled.

As mentioned above, the negative pressure booster of the present invention is not anticipated by the fluid pressure generator 1 of Ogura et al. Claims of the application are patentable over Ogura et al.

Reconsideration and allowance are earnestly solicited.

Respectfully submitted,

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